

Blended Satellite Products: Total Precipitable Water and Satellite Rainfall Estimation

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To improve the analysis and forecast of heavy precipitation and flooding, several satellite-derived products are available. Operational since March of 2009, blended Total Precipitable Water (TPW) and Percent of Normal products are available hourly and produced from polar orbiting microwave sensors, ground-based GPS and geostationary sounders. These two products are available in AWIPS and the internet to use with other meteorological information to help improve the analysis and forecast of heavy precipitation and their resultant flooding. Moisture plumes, overlaying low level winds for moisture transport and their use in forecasting potential Predecessor Rainfall Events (PREs) will be highlighted. The second half of the talk will briefly discuss the current state of operational geostationary satellite rainfall estimates: where they are on the internet and AWIPS; when they may be most useful; how they have been used to supplement observational rain gage and radar derived rainfall measurements. In addition, blended Rain Rates are available experimentally from polar orbiting microwave satellites to help supplement the geostationary estimates. Where this experimental product can be found on the internet and how they are used will also be shown.